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## NOTICE OF ALLOWANCE AND FEE(S) DUE

|  | 7590 01/       | 15/2002      |                     |                 |                      |                  |  |  |
|--|----------------|--------------|---------------------|-----------------|----------------------|------------------|--|--|
| Leo J Aubel  |                |              |                     |                 | EXAMINER             |                  |  |  |
| 111 Rivershire Lane Lincolnshire, IL 60069   |                |              |                     |                 | GEMMELL, ELIZABETH M |                  |  |  |
| 2, 12  |                |              |                     |                 | ART UNIT             | CLASS-SUBCLASS   |  |  |
|  |                |              |                     |                 | 2882                 | 378-064000       |  |  |
|  | · A            |              |                     | DATE            | MAILED: 01/15/2002   |                  |  |  |
| APPLICATION NO.  | FILING DAT     | TE .         | FIRST NAMED INVENTO | R               | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |  |  |
| 09/709,896   | 11/13/200      | 0            | Gueorgui Gueorguiev |                 |                      | 3631             |  |  |
| TITLE OF INVENTION: IRRADIATION SYSTEM, AND METHOD USING X-RAY AND GAMMA-RAY REFLECTOR |                |              |                     |                 |                      |                  |  |  |
|  |                |              |                     |                 |                      |                  |  |  |
| ŤQTAL CLAIMS   | APPLN. TYPE    | SMALL ENTITY | ISSUE FEE           | PUBLICATION FEE | TOTAL FEE(S) DUE     | DATE DUE         |  |  |
| 12   | nonprovisional | YES          | \$640               | \$0             | \$640                | 04/15/2002       |  |  |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

# HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# PART B - FEE(S) TRANSMITTAL

| Com   | plete and | mail this    | form.                                   | together | with   | applicable | fee(s) | . to: |
|-------|-----------|--------------|---|----------|--------|------------|--------|-------|
| COIII | piete una | ******* **** | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | together | ** *** | applicable | 100(3) | ,     |

**Box ISSUE FEE** 

**Assistant Commissioner for Patents** 

Washington, D.C. 20231

| where appropriate. All fi  | urther correspondence is<br>ed below or directed ot   | ncluding the Patent, advan   | ce orders and notificatio  | n of maintenance fees w  | ill be mailed to the curren  | it correspondence address as<br>arate "FEE ADDRESS" for   |  |
|--|---|--|--|--|--|---|--|
|  | ENCE ADDRESS (Note: Legib   | oly mark-up with any corrections o   |  | other accompanying pa  | of mailing below can or<br>Transmittal. This certificate<br>pers. Each additional part<br>thave its own certificate of | nly be used for domestic<br>ate cannot be used for any<br>ber, such as an assignment<br>of mailing. |  |
| 111 Rivershire I<br>Lincolnshire, IL   |   |  |  | I hereby certify that the United States Postal Se envelope addressed to indicated below. | Certificate of Mailing his Fee(s) Transmittal is rvice with sufficient posta the Box Issue Fee ad                      | being deposited with the<br>ge for first class mail in an<br>dress above on the date                |  |
|  |   |  |  |  |  | (Depositor's name)  |  |
|  |   |  | L  |  |  | (Signature)   |  |
|  |   |  | L  |  |  | (Date)  |  |
| APPLICATION NO.  | FILING DATE   | <u> </u>   | FIRST NAMED INVENTO  | OR A   | ATTORNEY DOCKET NO.  | CONFIRMATION NO.  |  |
| 09/709,896   | 11/13/2000  | <u> </u>   | Gueorgui Gueorguie   |  |  | 3631  |  |
|  |   | TEM AND METHOD US  |  |  |  |   |  |
| TOTAL CLAIMS   | APPLN. TYPE   | SMALL ENTITY   | ISSUE FEE  | PUBLICATION FEE  | TOTAL FEE(S) DUE   | DATE DUE  |  |
| 12   | nonprovisional  | YES  | \$640  | \$0  | \$640  | 04/15/2002  |  |
| EXA  | MINER   | ART UNIT   | CLASS-SUBCLA   | ASS  |  |   |  |
| GEMMELL,   | ELIZABETH M   | 2882   | 378-064000   |  |  |   |  |
| Address form PTO/SI  "Fee Address" indi PTO/SB/47) attached  3. ASSIGNEE NAME A PLEASE NOTE: Unle: | B/122) attached. cation (or "Fee Address  | A TO BE PRINTED ON The delow, no assignee da being submitted under sep   | or agents OR, a single firm (hav attorney or ager registered patent is listed, no name   | type) tent. Inclusion of assign of this form is NOT a s                                  | me of a egistered up to 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | te when an assignment has gnment.   |  |
| Please check the appropr   | iate assignee category o  | or categories (will not be p   | rinted on the patent)  | individual 🔾 cor   | poration or other private g  | roup entity   |  |
| 4a. The following fee(s)   | are enclosed:   |  | Payment of Fee(s):   |  |  |   |  |
| ☐ Issue Fee  |   |  | □ A check in the amount of the fee(s) is enclosed.   |  |  |   |  |
| ☐ Publication Fee ☐ Advance Order - # of Copies  |   | _  | Payment by credit card. Form PTO-2038 is attached.  The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to |  |  |   |  |
| Advance Order - # 0  | of Copies   | <u>D</u>   | eposit Account Number  | ence dumorized by char   | lose an extra copy of this   | form).  |  |
| The COMMISSIONER (<br>application identified abo   |   | RADEMARKS is requested   | d to apply the Issue Fee   | and Publication Fee (if a  | iny) or to re-apply any pro  | eviously paid issue fee to the  |  |
| (Authorized Signature)   |   | (Date)   |  |  |  |   |  |
| NOTE; The Issue Fee<br>other than the applica<br>interest as shown by the                          | and Publication Fee (int; a registered attorne records of the United S  | f required) will not be ac<br>y or agent; or the assign<br>States Patent and Tradema   | ccepted from anyone<br>lee or other party in<br>rk Office.   |  |  |   |  |
| to complete this form and Trademark Office,  | t: This form is estimated of the individual case, should be sent to the C Washington, D.C. 202: DDRESS. SEND FEE or for Patents, Washington | d to take 0.2 hours to com<br>Any comments on the am<br>thief Information Officer,<br>31. DO NOT SEND FEE<br>S AND THIS FORM<br>on, D.C. 20231 | plete. Time will vary<br>ount of time required<br>United States Patent<br>S OR COMPLETED<br>TO: Box Issue Fee,   |  |  |   |  |

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| APPLICATION NO.  | NO. FILING DATE |            | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|-----------------|------------|----------------------|-------------------------|------------------|--|
| 09/709,896   | 11/13/2000      |            | Gueorgui Gueorguiev  | · ·                     | 3631             |  |
| 7590 01/15/2002  |                 | 01/15/2002 | . (                  | EXAMINER                |                  |  |
| Leo J Aubel<br>111 Rivershire Lane<br>Lincolnshire, IL 60069 |                 |            | . [                  | GEMMELL, ELIZABETH M    |                  |  |
|  |                 |            |                      | ART UNIT                | PAPER NUMBER     |  |
|  |                 |            |                      | 2882                    |                  |  |
|  |                 |            | •                    | DATE MAILED: 01/15/2002 |                  |  |

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

|  | Application No.                 | Applicant(s)  |               |  |  |  |
|--|---------------------------------|---|---------------|--|--|--|
|  | 09/709,896                      | GUEORGUIEV, GU  | EORGUI        |  |  |  |
| Notice of Allowability   | Examiner                        | Art Unit  |               |  |  |  |
|  | Beth Gemmell                    | 2882  |               |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |                                 |   |               |  |  |  |
| 1. This communication is responsive to <u>10-27-01</u> .   |                                 |   |               |  |  |  |
| 2. The allowed claim(s) is/are <u>1-12</u> .   |                                 |   |               |  |  |  |
| <ul> <li>3.  The drawings filed on 11-13-00 are accepted by the Examination</li> <li>4.  Acknowledgment is made of a claim for foreign priority under a)  All b)  Some* c)  None of the:</li> </ul>  |                                 | n).   |               |  |  |  |
| 1. ☐ Certified copies of the priority documents have   | been received.                  |   |               |  |  |  |
| 2. Certified copies of the priority documents have   |                                 | No  |               |  |  |  |
| 3. Copies of the certified copies of the priority do   |                                 |   | tion from the |  |  |  |
| International Bureau (PCT Rule 17.2(a)).   |                                 | •   |               |  |  |  |
| * Certified copies not received:   |                                 |   |               |  |  |  |
| 5. Acknowledgment is made of a claim for domestic priority un  | nder 35 U.S.C. § 119(e) (to a p | provisional application).   |               |  |  |  |
| (a) 🔲 The translation of the foreign language provisional a  | pplication has been received.   |   |               |  |  |  |
| 6. Acknowledgment is made of a claim for domestic priority us  | nder 35 U.S.C. §§ 120 and/or    | 121.  |               |  |  |  |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  7. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.  |                                 |   |               |  |  |  |
| 8. CORRECTED DRAWINGS must be submitted.  (a) including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  1) hereto or 2) to Paper No  (b) including changes required by the proposed drawing correction filed, which has been approved by the Examiner.   |                                 |   |               |  |  |  |
| (c) 🔲 including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No  |                                 |   |               |  |  |  |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.   |                                 |   |               |  |  |  |
| 9. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.  |                                 |   |               |  |  |  |
| Attachment(s)  |                                 |   |               |  |  |  |
| 1 ☐ Notice of References Cited (PTO-892) 3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5 ☐ Information Disclosure Statements (PTO-1449), Paper No 7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material  | 4☐ Interview 5<br>6☐ Examiner's | nformal Patent Application (<br>Summary (PTO-413), Paper<br>s Amendment/Comment<br>s Statement of Reasons for | No            |  |  |  |

### **DETAILED ACTION**

It is acknowledged that all corrections were made and submitted on October 27, 2001.

# Allowable Subject Matter .

Claims 1-12 are allowed.

The following is an examiner's statement of reasons for allowance:

Weilt et al., Moses, Gutman, Lanotte, and Williams et al. disclose a system, method or apparatus for the irradiation of a product. All utilize a radiation source to irradiate a product but fail to include a reflector in the system. One of ordinary skill in the art would not have been motivated to modify these teachings to include a radiation reflector comprised of a low Z, high density material, positioned to receive and reflect back the penetrating and exiting radiation from the product to provide additional irradiation energy to the product.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for

Application/Control Number: 09/709,896

Art Unit: 2882

Page 3

the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

emg January 14, 2002 ROBERT H. KIM
PURE THIS CHY PATENT EXAMINER
NECHNOLOGY CENTER 2800